

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	22	(US-20050103620-\$ or US-20020000779-\$ or US-20020153103-\$ or US-20020129902-\$).did. or (US-6138606-\$ or US-5334302-\$ or US-6140773-\$ or US-6441553-\$ or US-3955118-\$ or US-5003226-\$ or US-6446572-\$ or US-4198283-\$ or US-6137231-\$ or US-6388381-\$ or US-6915964-\$ or US-6406590-\$ or US-5481081-\$ or US-4533852-\$ or US-5549780-\$ or US-5221427-\$).did. or (US-3531989-\$).did. or (US-4344019-\$).did.	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/08/10 09:21
L2	3	"4344019".pn.	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/08/10 09:22
L3	8	("5695566"   "5804089"   "5879741"   "5964947"   "5972435"   "6155200"   "6155202").PN. OR ("6406590").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:27
L4	6	("5169452"   "5464667"   "5679167").PN. OR ("6388381").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:28
L5	41	("2146025"   "3616450"   "3711398"   "3878085"   "4006073"   "4025410"   "4547279"   "4604180"   "4622121"   "4664935"   "4673480"   "4724060"   "4747926").PN. OR ("5334302").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:31
L6	30630	(118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L7	8007	137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L8	2490	141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L9	482	261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L10	2631	261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L11	7233	261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47

## EAST Search History

L12	30630	(118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L13	2191	(118/723e.ccls. or 118/723er.ccls. or 156/345.43-345.47.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L14	10451	118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L15	8007	137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L16	2490	141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L17	482	261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L18	2631	261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L19	7233	261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L20	30630	(118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L21	32219	L13 or L20	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47

## EAST Search History

L22	2191	(118/723e.ccls. or 118/723er.ccls. or 156/345.43-345.47.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L23	30630	(118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L24	1	("20050016457").PN.	US-PGPUB	OR	OFF	2006/08/10 09:47
L25	23	"Penning source"	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L26	953	Penning and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L27	935	L26 not L25	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L28	694	L27 and (electrode or anode)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L29	22	("2715692"   "2754442"   "2831996"   "3264511"   "3546513"   "3623136").PN. OR ("3955118").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L30	3099	118/723e.ccls. or 118/723er.ccls. or 118/723mp.ccls. or 118/723r.ccls. or 156/345.43-345.47.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:37
L31	894	KAWASAKI-SHINICHI.in. or NAKATAKE-SUMIO.in. or KITAHATA-HIROYA.in. or NAKAJIMA-SETSUO.in. or EGUCHI-YUJI.in. or ANZAI-JUNICHIRO.in. or NAKANO-YOSHINORI.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L32	178	L31 and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L33	126	L30 and ("hollow cathode")	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 09:47
L34	16	("4980196"   "5037522"   "5039376"   "5110437"   "5330800"   "5552675"   "5804089").PN. OR ("6137231").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47

## EAST Search History

L35	46	Anders-Andre.in. or Anders-Simone.in. or Dickinson-Michael.in. or Rubin-Michael.in. or Newman-Nathan.in.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L36	17	L35 and plasma	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L37	5	("5580429"   "5614248"   "5653811").PN. OR ("6140773").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L38	6	("5169452"   "5464667"   "5679167").PN. OR ("6388381").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L39	2852	L30 not 9-15	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L40	48	L39 and ((cathode or ground or earthed) same concentric)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L41	22	L40 and ((cathode or ground or earthed) same (inner and outer))	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L42	48	L40 or L41	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L43	2414	plasma and (wafer or substrate) and ((cathode or ground or earthed) same (concentric or (inner and outer))) not L42	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L44	2016	L43 and (dielectric or insulat\$3)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L45	1473	L44 and (reactor or chamber)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L46	415	plasma and (wafer or substrate) and (cylindrical adj1 (cathode or anode)) not (L42 or L45)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L47	193	zervigon.xa. or zervigon.xp.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L48	121	L47 and electrode	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L49	164	L30 and (alternating with electrodes)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L50	8	("5695566"   "5804089"   "5879741"   "5964947"   "5972435"   "6155200"   "6155202").PN. OR ("6406590").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L51	14	("5387842"   "5403453"   "5414324"   "5456972"   "5558843"   "5669583"   "5714308"   "5753886"   "5767469"   "5789145"   "5968377").PN. OR ("6441553").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 09:47
L52	23	("4792378"   "4948458"   "4981722"   "5399254"   "5449432"   "5468296"   "5522934"   "5597438"   "5639519"   "5669975"   "5710486"   "5800688"   "5830330"   "5879523"   "5885358"   "5989838"   "6062163"   "6080287"   "6089183"   "6237526"   "6296747").PN. OR ("6446572").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 10:01
L53	800	"hollow anode"	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 10:01

## EAST Search History

L54	1037	"hollow anode"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:05
L55	597	54 and (dielectric or insulat\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:37
L56	283	55 and (cap or lid or cover)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:37
L57	8545	hollow adj1 (anode or cathode or electrode)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:05
L58	4324	57 and (dielectric or insulat\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:37
L59	1919	58 and (cap or lid or cover)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:05
L60	892	59 and plasma	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:06
L61	2222	30 and (dielectric or insulat\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:37
L62	1050	61 and (cap or lid or cover)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:37
L63	1050	62 and (dielectric or insulat\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:38
L64	982	62 not 60	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/08/10 10:47

## EAST Search History

L65	5	((("6,270,862") or ("6,137,231") or ("5,560,779") or ("5,384,447") or ("20020092616")).PN.	US-PGPUB; USPAT	OR	OFF	2006/08/10 10:47
L66	8	("4626448"   "4829215"   "5091209"   "5292370"   "5716451"   "5980687"   "6174809"   "6440494").PN. OR ("6656540").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 10:56
L67	29	("3179213"   "4078812"   "4167351"   "4427516"   "4491496"   "4526644"   "4612432"   "4623417"   "4668373"   "4693777"   "4793975"   "5066381"   "5074456"   "5161908"   "5178681"   "5223113"   "5236151"   "5238499"   "5252892"   "5257872"   "5269894"   "5272417"   "5366585"   "5494523"   "5589003"   "5680013").PN. OR ("5959409").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 11:20
L68	43	("4427516"   "4491496"   "4526644"   "4612432"   "4623417"   "4693777"   "4793975"   "5223113"   "5236151"   "5252892"   "5272417"   "5366585").PN. OR ("5680013").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 11:44
L69	46	"5,680,013"	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 11:46
L70	364	30 and array	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 11:46
L71	31	("4132613"   "4209357"   "4892753"   "4969415"   "5007373"   "5009738"   "5032202"   "5292401"   "5336326").PN. OR ("5627435").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/10 11:57
L72	1	("20030129107").PN.	US-PGPUB	OR	OFF	2006/08/10 11:57
S31	29533	(118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/05/30 20:47
S34	7874	137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S35	2413	141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S36	471	261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S37	2607	261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S38	7161	261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03

## EAST Search History

S39	29603	(118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S40	2013	(118/723e.ccls. or 118/723er.ccls. or 156/345.43-345.47.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S41	9736	118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S42	7874	137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S43	2413	141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S44	471	261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S45	2607	261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S46	7161	261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S47	29603	(118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S48	31053	S40 or S47	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03

## EAST Search History

S49	2013	(118/723e.ccls. or 118/723er.ccls. or 156/345.43-345.47.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S50	29603	(118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/21 14:03
S51	1	("20050016457").PN.	US-PGPUB	OR	OFF	2006/03/28 09:22
S52	23	"Penning source"	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/03/28 09:24
S53	904	Penning and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/03/28 09:24
S54	886	S53 not S52	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/03/28 09:24
S55	662	S54 and (electrode or anode)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/03/28 09:24
S56	22	("2715692"   "2754442"   "2831996"   "3264511"   "3546513"   "3623136").PN. OR ("3955118").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 09:43
S57	2988	118/723e.ccls. or 118/723er.ccls. or 118/723mp.ccls. or 118/723r.ccls. or 156/345.43-345.47.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/03/28 12:59
S58	869	KAWASAKI-SHINICHI.in. or NAKATAKE-SUMIO.in. or KITAHATA-HIROYA.in. or NAKAJIMA-SETSUO.in. or EGUCHI-YUJI.in. or ANZAI-JUNICHIRO.in. or NAKANO-YOSHINORI.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/03/28 13:06
S59	166	S58 and plasma	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/03/28 13:15
S60	118	S57 and ("hollow cathode")	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/03/28 13:15
S61	14	("4980196"   "5037522"   "5039376"   "5110437"   "5330800"   "5552675"   "5804089").PN. OR ("6137231").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:34



## EAST Search History

S62	46	Anders-Andre.in. or Anders-Simone.in. or Dickinson-Michael.in. or Rubin-Michael.in. or Newman-Nathan.in.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:35
S63	17	S62 and plasma	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:35
S64	4	("5580429"   "5614248"   "5653811").PN. OR ("6140773").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:36
S65	5	("5169452"   "5464667"   "5679167").PN. OR ("6388381").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:49
S66	2741	S57 not 9-15	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:49
S67	46	S66 and ((cathode or ground or earthed) same concentric)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:56
S68	22	S67 and ((cathode or ground or earthed) same (inner and outer))	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:50
S69	46	S67 or S68	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:51
S70	2310	plasma and (wafer or substrate) and ((cathode or ground or earthed) same (concentric or (inner and outer))) not S69	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 15:00
S71	1926	S70 and (dielectric or insulat\$3)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 13:58
S72	1411	S71 and (reactor or chamber)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 14:01
S73	408	plasma and (wafer or substrate) and (cylindrical adj1 (cathode or anode)) not (S69 or S72)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 17:06
S74	184	zervigon.xa. or zervigon.xp.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 17:06
S75	115	S74 and electrode	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 17:31
S76	159	S57 and (alternating with electrodes)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 17:31
S77	8	("5695566"   "5804089"   "5879741"   "5964947"   "5972435"   "6155200"   "6155202").PN. OR ("6406590").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 17:38
S78	13	("5387842"   "5403453"   "5414324"   "5456972"   "5558843"   "5669583"   "5714308"   "5753886"   "5767469"   "5789145"   "5968377").PN. OR ("6441553").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/28 17:40